DOCUMENT RESUME

ED 258 018 CE 041 692

TITLE	Standards for Excellence in Business Education.
INSTITUTION	East Carolina Univ., Greenville, N.C.
SPONS AGENCY	Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE	Jul 85
CONTRACT	300-84-0035
NOTE	132p.; For a related executive summary, see CE 041 694. Title page reads "Standards for Business Education Programs and for Instruction in Information Processing."
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.
PUB TYPE	Legal/Legislative/Regulatory Materials (090)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Business Education; Counseling Services; Course Content; Curriculum; *Delivery Systems; Educational Needs; Educational Objectives; Educational Philosophy; *Educational Practices; Educational Quality; *Evaluation Criteria; Financial Support; Instructional Development; Postsecondary Education; Program Administration; Program Content; Program Design; Program Evaluation; Public Relations; Relevance (Education); Secondary Education; Staff Development; Standards; Student Organizations; Teacher Qualifications; Teaching Methods

ABSTRACT

This volume contains 247 program standards for business education and 188 instructional standards for information processing that were developed during an 18-month project entailing a comprehensive literature review, regional conferences, and a mail survey of professional business educators. Addressed in the individual standards are the following areas of business education programming: philosophy and purpose, organization and administration, curriculum and instruction, instructional staff, financial resources, instructional support systems, public relations, student development services, and evaluation. Standards are set forth pertaining to the following areas of instruction in information processing: organization, content, related content, methods and resources, instructional support systems, and evaluation. Also included in the volume are a discussion of application of the standards, a series of definitions, a description of the project to develop the standards, a list of acknowledgments, and a list of suggested references. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

STANDARDS FOR EXCELLENCE IN BUSINESS EDUCATION

A Project of the School of Technology
East Carolina University
and the
United States Department of Education
July 1985

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

The project presented herein was performed pursuant to a contract from the U. S. Department of Education, Office of Vocational and Adult Education. However, the ideas expressed herein do not necessarily reflect the position or policy of the U. S. Department of Education, and no official endorsement by the U. S. Department of Education should be inferred.

Discrimination Prohibited - No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or be so treated on the basis of sex under most education programs or activities receiving Federal assistance.

Contract Number 300-84-0035

July 1985

STANDARDS FOR BUSINESS EDUCATION PROGRAMS

AND FOR

INSTRUCTION IN INFORMATION PROCESSING

Standards for Excellence in Business Education Project
Department of Business Education & Administrative Services
School of Technology
East Carolina University
Greenville, NC 27834
July 1985

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

PREFACE

Evaluation of every business education program should be a continuous process. Whether it is formal or informal, strengths and weaknesses can be identified, and an overall assessment of the program can be made. Only through such a process can meaningful program revision and improvement take place.

The standards comprising this document--program standards for business education and instructional standards for information processing--are designed to guide individual teachers, administrators, supervisors, or other individuals or groups in assessing business education. The standards were developed for use at the secondary, postsecondary, and adult levels.

Although the objective of any evaluative process is improvement, some specific benefits that could accrue from use of this document include the following:

1. Summative type program assessment in preparation for accreditation.
2. Formative type program improvement involving the identification and correction of deficiencies.
3. Organization and implementation of a program in information processing.
4. Guidance in the development of program and course objectives and course revisions.
5. Orientation of administrators and others in charge of educational programs with specific needs in the field of business education.
6. Professional development of individual faculty members.

These standards were developed and validated nationwide and involved business educators throughout the United States, its territories, and Department of Defense Dependent schools. They provide a means for assessing the quality of business education programs and instruction in information processing as a basis for achieving excellence.

CONTENTS

Preface

Development of the Standards. 1

Definitions 4

Standards Statements Appropriate for One Level Only 6

Application of the Standards. 9

Standards of Excellence 14

Program Standards 14

Standard Topic I. Philosophy and Purpose 14

A. Development 14

B. Dissemination and Utilization 16

Standard Topic II. Organization and Administration . 18

A. Organizational Structure. 18

B. Program Planning. 19

C. Student Recruitment and Admission 21

1. Recruitment 21

2. Admission 22

Standard Topic III. Curriculum and Instruction . . . 24

A. Curriculum. 24

1. Planning. 24

2. Development 25

3. Competencies. 27

4. Target Groups 30

5. Review and Revision 32

B. Course Objectives 33

C. Instruction 33
1. Content 33
2. Activities. 35
Standard Topic IV. Instructional Staff 39
A. Qualifications. 39
B. Professionalism 40
C. Staff Development 40
D. Evaluation. 41
Standard Topic V. Financial Resources. 43
A. Funding 43
B. Management. 44
Standard Topic VI. Instructional Support Systems . . 46
A. Physical Facilities 46
1. Environmental Design. 46
2. Utilization 49
3. Care and Maintenance. 50
4. Safety. 50
B. Instructional Resources 52
1. Equipment 52
2. Supplies and Materials. 52
Standard Topic VII. Public Relations 55
A. Planning. 55
B. Publics 56
1. Internal Publics. 56
2. External Publics. 57

Standard Topic VIII. Student Development Services. . 61
A. Vocational Business Student Organizations . . 61
1. Structure 61
2. Support 62
B. Guidance Services 62
1. Student Assessment. 62
2. Academic Guidance 63
3. Career Guidance 63
4. Placement and Follow-up 64
Standard Topic IX. Evaluation. 66
A. Data Collection and Analysis. 66
B. Dissemination and Utilization 67
Instructional Standards for Information Processing. . . . 68
Standard Topic I. Organization 68
Standard Topic II. Content 70
A. Terminology 70
B. Careers 70
C. Cycles and Functions. 72
D. Hardware. 73
E. Software. 74
F. Trends and Issues 75
G. Employability Knowledge and Skills. 77
H. Employability Traits and Attitudes. 78
I. Computer Literacy 83
J. Management/Supervision. 87

K. Computer Programming. 89
L. Integrated Information Systems. 90
Standard Topic III. Related Content. 92
A. Electronic Keyboarding. 92
B. Communication 92
Standard Topic IV. Methods and Resources 97
Standard Topic V. Instructional Support Systems. . . . 102
A. Staff 102
B. Materials 103
C. Equipment 104
Standard Topic VI. Evaluation. 107
Acknowledgments 109
Selected References 120

DEVELOPMENT OF THE STANDARDS

For over a century, business education has been an integral part of American education. Its emphasis on the preparation of persons for office and entrepreneurial employment has served our nation well; its stress on education for and about business has been a significant and vital component of the curriculum of all schools. Business education's record over the years represents a sound foundation upon which to build for the future.

In March, 1980, a study of "Business Education: Its Status, Its Potential, and Its Needs in the 1980's" was released by a Joint Committee of the Business and Office Education Division of AVA and the National Business Education Association. In 1982, the National Business Education Advisory Committee, appointed by Robert M. Worthington, Assistant Secretary for Vocational and Adult Education, identified elements that contribute to quality in the field. The Committee's twenty-two Imperatives for Business Education focus on the crucial role of business enterprise in our society. To address these priority imperatives, the Business Education Advisory Committee recommended an evaluative assessment of all program standards now in use, at all educational levels, to determine their relevancy. The overall purpose of this project was to develop qualitative standards of performance for secondary, postsecondary, and adult programs of business education which will enhance the quality of programs and strengthen the field at all levels.

The impetus for the project came from instructors, teacher educators, publishers, employers, and administrators concerned about the need to maintain viable and relevant programs. Strong business education programs make a contribution to the solution of economic problems such as inflation, unemployment, consumer literacy, and deficit spending. Similarly, the shift toward an information-based labor market imposes a strong responsibility on business education programs to update their resources.

The project complements earlier Department of Education contracts that developed standards for vocational agriculture, home economics, industrial arts, and trade and industrial education programs.

Project objectives were to develop (1) program standards for excellence which are common to business education programs and (2) instructional standards for excellence common to information processing with emphasis on data and word processing.

Program and instructional standards were develcped through a five-phase process as follows:

Phase 1. Review and Analysis of Literature. The first phase began in January, 1984, with an intensive review and analysis of literature to determine state-of-the-art thinking and to interpret the literature in terms of standards. More than 1800 individual items were reviewed as a result of computer searches

of ERIC and business-related data bases, feedback from state business education consultants and supervisors, and materials supplied by groups such as the American National Standards Institute and other accrediting agencies. Materials reviewed include dissertations, research reports, journal articles, curriculum guides, state plans, state and local competency inventories, and educational and business standards. To amplify findings from the literature, site visits were made by the project team to business, industrial and governmental organizations and agencies to collect data related to information processing standards. A Status Report of the Review of the Literature was submitted in June, 1984, for availability through the ERIC System.

Phase 2. Preparation of Draft Standards. Based on findings from the literature search and the site visits, the project staff drafted tentative standards statements under nine program topics and six information processing topics. Two advisory groups assisted in the development of standards and the identification of topics: (1) the Technical Advisory Group, composed of nine representatives from business, education, industry, and professional organizations throughout the nation and (2) a Local Advisory Group which included educators and representatives from business and industry throughout North Carolina. Consultants in program development and information processing worked closely with the project staff during this phase.

Phase 3. Validation of Standards. After the standards statements were drafted, reviewed, and revised, they were reproduced in booklet form for validation--one for program standards and one for instructional standards. A nationwide sample of teachers, administrators, supervisors, and teacher educators were involved in validating the standard statements. Two methods were employed to secure participants: (1) Through announcements in the Business Education Forum and brochures distributed to business education leaders nationwide, all business educators were invited to attend one of four validation workshops. The workshops were conducted at two national and two regional meetings including the Eastern Business Education Association Convention, Lancaster, Pennsylvania, October 20, 1984; Southern Business Education Association Convention, Hilton Head, South Carolina, October 26, 1984; Delta Pi Epsilon National Research Conference, Denver, Colorado, November 8, 1984; and the American Vocational Association Convention, New Orleans, Louisiana, December 1, 1984; and (2) To further ensure nationwide participation, state supervisors of business education were asked to submit names of eight persons (four secondary teachers, two postsecondary/adult teachers, and the secondary and postsecondary state supervisors) to participate in validating the standards through a mailed survey.

Through workshops and the mailed survey, program standards were reviewed by 366 business educators, and the instructional standards were examined by 378 business educators. Quantitative data covering responses to both program and instructional

standards were analyzed statistically, and those items not receiving a 68 percent endorsement were eliminated. Feedback from validators and advisory groups was used to further refine the approved statements.

Phase 4. Preparation of Standards in Usable Form. Using feedback from the validation phase, the project staff revised the standards and compiled them into a document for use by business educators at the secondary, postsecondary, and adult levels.

Phase 5. Dissemination of Standards. Recommendations were made to the U. S. Department of Education that the standards be disseminated to appropriate Federal, state, and local agencies. They will be available through the ERIC System.

DEFINITIONS

Definition of the Field

Business education is a broad, comprehensive discipline appealing to a wide spectrum of youth and adults. The instructional program encompasses primarily: (1) knowledges, attitudes, and skills needed by all citizens in order to manage effectively their personal business needs and to understand the American business and economic systems and (2) vocational knowledge and skills needed for entry-level employment and advancement in a broad range of business careers.

The basic skills of reading, writing, and computing undergird all business education courses and programs. These programs include instruction in creating effective oral and written communications; preparing and analyzing financial records; managing cash flow; operating appropriate equipment to process, store, retrieve, and distribute alphanumeric data/information; developing skills and knowledge related to interpersonal behaviors and economic literacy; and performing other consumer and business-related tasks.

Business education attracts students with varying objectives, native abilities, attitudes, socio-economic backgrounds, ethnic heritages, and ages. It is an attractive field for students because they perceive it as one that is relevant. Further, because business, industry, and government need employees of varying capabilities, programs are available for students with superior, average, or below-average abilities.

Business education programs are offered at the secondary, postsecondary, and adult levels. Secondary programs are offered in traditional high schools, vocational high schools, and area vocational schools. Postsecondary offerings for less than baccalaureate degree programs are offered primarily in community colleges. Adult programs may be offered at any of the above levels.

Definition of Terms

The following definitions are included in order that the reader might have an understanding of the terms as they are used in the standards document.

Program Standards: Descriptive statements developed by business educators to be used as a guide to assess the degree to which a program meets qualitative characteristics of excellence.

Instructional Standards:	Descriptive statements developed by business educators to be used as a guide to assess the degree to which an instructional program in information processing meets qualitative characteristics of excellence.
Data Processing:	The execution of a programmed sequence of operations upon data. A generic term for computing in business situations and other applications with machines such as digital computers and peripheral equipment.
Word Processing:	A system for processing text materials in which input files may be stored for later correction and use, eliminating rekeying. Word processing is performed on computers or special electronic equipment.

STANDARDS STATEMENTS APPROPRIATE FOR ONE LEVEL ONLY

Individuals participating in the validation process were asked to indicate the appropriateness of each standard for the secondary level and for the postsecondary/adult level. Those standards which did not receive approval by 68 percent of the individuals evaluating them were eliminated.

The following standards, included in this document, met the criteria for appropriateness at the secondary level only.

Program Standards

- The statement of philosophy and purpose is reviewed annually and revised when necessary to reflect relevancy of the program to board policies.
- The curriculum is accessible to all students who can benefit including those who are mentally/emotionally handicapped.
- Staff development activities include training for school-related emergencies.
- Adjustable height desks are used.
- Health and safety precautions are taught in business classes.
- The evaluation process includes involvement of guidance counselors.
- The evaluation process includes involvement of parents.

Instructional Standards

- Information processing is implemented through one or more organizational patterns which include the single course model.

The following standards, included in this document, met the criteria for appropriateness at the postsecondary/adult levels only.

Program Standards

- The curriculum provides opportunities for students to develop competencies related to managerial positions.
- The curriculum provides opportunities for students to develop competencies related to professional positions.
- Guides include or identify pre- and post-tests.

- The individual learning styles of students are addressed through the use of a variety of instructional activities and configurations including networking.

Instructional Standards

- Information processing is implemented through one or more organizational patterns which include the complete curriculum model.
- Instruction incorporates major developments in the evolution of voice processing.
- Instruction includes establishing procedures which reflect needs analysis, feasibility surveys, and vendor credentials.
- Instruction related to software selection incorporates establishing procedures which reflect consideration of needs analysis; canned, modular, and custom software; complexity and cost; vendor policies; and effectiveness of the instruction manual.
- Instruction includes trends and issues relating to legal ramifications of the electronic office.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to ergonomics in the electronic office environment.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to the role and relationship of the information system to each of its subsystems.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to scheduling of equipment, workflow, and people.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to patterns of people interaction.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to personnel selection, training, and evaluation.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to costs of office operations.
- Instruction in the management/supervision of information processing incorporates the basic principles of management related to centralization/decentralization of control.

- Programming concept development focuses on advantages, disadvantages, and applications of various programming languages.

- Programming concept development focuses on planning for volume work.

- Instruction includes advantages and limitations of various configurations, such as distributed processing.

- A variety of methods and techniques are used for instruction including information processing research projects.

APPLICATION OF THE STANDARDS

The Standards for Excellence in Business Education are up-to-date statements of validated program and information processing instructional criteria. They are designed for use by business teachers, school or system-level administrators and business educators, and district/state level business educators as aids to improving business education at the secondary and postsecondary levels.

Marking the Standards

The Program Standards are organized into nine topical areas incorporating 247 standards, as follows:

Topic	No. of Standards
Philosophy and Purpose	16
Organization and Administration	29
Curriculum and Instruction	76
Instructional Staff	15
Financial Resources	12
Instructional Support Systems	48
Public Relations	24
Student Development Services	21
Evaluation	6

The Information Processing Instructional Standards are organized into six topical areas with 188 standards, as follows:

Topic	No. of Standards
Organization	3
Content	113
Related Content	24
Methods and Resources	21
Instructional Support Systems	21
Evaluation	6

Each standard topic is divided into a number of subtopics. Under each topic is a global statement describing the standards. This statement should not be marked.

To the right of each standard statement are three symbols representing "Exceeds Standard" (△); "Meets Standard" (◯); "Below Standard" (▽).

Use the following procedures for marking the standards:

1. Scan the complete listing of program and/or instructional standard statements to become familiar with the topics and the accompanying statements.

2. Read each standard statement and mark the appropriate symbol indicating whether the program or course exceeds, meets, or falls below the standard.

3. At the end of each standard topic, record the number of standards marked "Below Standard"; subtract this number from the total number of standards under that topic. The result is the number that meet or exceed the standard. These numbers should be recorded on the Summary Profile Form on page 12.

4. Record additional information about the program or course as related to the standard topic under the "Comments" sections at the end of each topic.

The first standard statement under the Instructional Staff Topic of the Program Standards says: "Each faculty member possesses a minimum of a baccalaureate degree with a major in business from an accredited teacher education program." If all faculty members possess at least a baccalaureate degree, mark the ◯ , Meets Standard. If all or part of the faculty members possess a Masters Degree or higher, mark △ , Exceeds Standard. The second standard statement says, "Each faculty member meets appropriate state standards of educational preparation and occupational experience for certification." If one member of the faculty does not meet appropriate state standards of preparation and experience for certification, mark ▽ , Below Standard. Respond to each standard statement in the same way.

Interpreting and Using the Results

After identifying the standards that are marked "Below Standard," the next step is to formulate plans for systematically correcting deficiencies. EACH STANDARD IS IMPORTANT, AND THE ULTIMATE GOAL IS TO ACHIEVE 100 PERCENT ON EACH TOPIC.

The Deficiency Identification and Correction Report can be used for identifying each deficiency and preparing a step-by-step correction plan. The form provides space to indicate the

priority for correcting a deficiency, the estimated cost of required resources, and person(s) responsible for making the correction.

Business teachers, administrators, and supervisors should find these standards useful as aids in planning, revising, and updating courses and programs. Teacher educators should incorporate these standards into methods and curriculum courses to acquaint pre- and in-service teachers with current standards validated by business educators at secondary, postsecondary, and adult levels as being important in the discipline.

SUMMARY PROFILE FORM

Place the information recorded for each topic in the "Summary of Topics" space on this profile for an overview of the results of the program review.

	Summary of Topics		
	Number of Standards for this Topic	Minus Number Marked Below	Total Number of Standards Met and Exceeded
I. STANDARDS FOR BUSINESS EDUCATION PROGRAMS FOR SECONDARY, POSTSECONDARY, AND ADULT LEVELS			
A. Philosophy			
B. Organization and Administration			
C. Curriculum and Instruction			
D. Instructional Staff			
E. Financial Resources			
F. Instructional Support Systems			
G. Public Relations			
H. Student Development Services			
I. Evaluation			
Total:			
II. STANDARDS FOR INSTRUCTION IN INFORMATION PROCESSING FOR THE SECONDARY, POSTSECONDARY, AND ADULT LEVELS			
A. Organization			
B. Content			
C. Related Content			
D. Methods and Resources			
E. Instructional Support Systems			
F. Evaluation			
Total:			
Grand Total:			

DEFICIENCY IDENTIFICATION AND CORRECTION REPORT

Directions: Complete a report for each standard marked "Below Standard"

School_____ Date_____

Program Standards Instructional Standards (circle one)

Identification of Deficiency

Topic:

Standard Statement:

Explanation of Deficiency:

Verified by_____ _____

Priority for Correction: High Medium Low (circle one)

==========

Plan for Correcting Deficiency

Planned Procedure for Correcting Deficiency: (give steps and anticipated dates for completion)

Person(s) Responsible for Correcting Deficiency:

Resources Required: Estimated Cost:

==========

Verification of Deficiency Correction

The deficiency noted above has been adequately corrected and verified by authorized personnel.

Signed _____(title)

_____(title) Date_____

PROGRAM STANDARDS FOR BUSINESS EDUCATION

Program Standards for Business Education address excellence in Business Education programs at the secondary, postsecondary, and adult levels. They are designed for use with Instructional Standards for Information Processing. Program quality and effectiveness are continuing concerns of every school.

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic I

PHILOSOPHY AND PURPOSE

The statement of philosophy and purpose of a business education program reflects a system of values used to guide program development decisions.(1)

Standard Statement

A statement of philosophy and purpose has been developed to provide guidance for the business program.

A. Development

1. The statement of philosophy and purpose reflects the school's philosophy and goals. △○▽
   Comment:

2. The statement of philosophy and purpose responds to the changing needs and interests of the publics it serves. △○▽
   Comment:

---

(1)Business education program is hereafter referred to as business program.

3. The statement of philosophy and purpose is consistent with current and emerging local, state, and national philosophies. △○▽
Comment:

4. The written statement of philosophy and purpose is used by faculty in the Department. △○▽
Comment:

5. The development of the philosophy and purpose involves former students, business faculty, administrative and supervisory personnel, and employer-advisory committee representatives. △○▽
Comment:

6. The statement of philosophy and purpose reflects a commitment to preparation for employment and advancement. △○▽
Comment:

7. The statement of philosophy and purpose reflects a commitment to preparation for advanced education and training. △○▽
Comment:

8. The statement of philosophy and purpose reflects a commitment to the development of technological literacy. △○▽
Comment:

9. The statement of philosopy and purpose reflects a commitment to the development of economic understanding. △○▽
Comment:

10. The statement of philosophy and purpose reflects a commitment to the development of effective interpersonal skills and attitudes. △○▽
Comment:

B. Dissemination and Utilization

1. The statement of philosophy and purpose serves as a basis for program planning and development. △○▽
Comment:

2. The statement of philosophy and purpose serves as a basis for program implementation. △○▽
Comment:

3. The statement of philosophy and purpose serves as a basis for program evaluation. △○▽
Comment:

4. The statement of philosophy and purpose is disseminated to relevant publics. △○▽
Comment:

C. Review and Revision

1. The statement of philosophy and purpose is reviewed annually and revised when necesssary to reflect relevancy of the program to its constituents. △○▽
Comment:

2. The review and revision process involves students, former students, business education faculty, administrative and supervisory personnel, and employer-advisory committee representatives. △○▽
Comment:

SUMMARY FOR PROFILE

16 Number of standards for this topic

____ Minus number marked <u>below</u> <u>standard</u>

____ Total number marked <u>meets</u> and <u>exceeds</u> <u>standard</u> (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic II

ORGANIZATION AND ADMINISTRATION

The organization and administration of a business program provide direction that ensures attainment of program goals.

Standard Statement

An administrative and organizational structure has been developed which facilitates implementation of the school's statement of philosophy and purpose.

A. Organizational Structure

1. The organizational structure identifies roles and relationships within the department and/or school. △○▽
Comment:

2. The administration supports business program development that is congruent with the philosophy and purposes of the school. △○▽
Comment:

3 The organizational structure assures faculty involvement in developing and implementing program and school goals and objectives. △○▽
Comment:

4. Responsibility for business program leadership is assigned to qualified administrators. △○▽
Comment:

5. Program supervision is assigned to qualified and supportive personnel. △○▽
Comment:

6. Faculty and staff responsibilities are clearly defined. △○▽
Comment:

7. Faculty and staff are given authority to carry out assigned responsibilities. △○▽
Comment:

B. Program Planning

1. Program goals provide direction for program development, implementation, and evaluation. △○▽
Comment:

2. Program plans provide for an effective, efficient, and responsive business curriculum. △○▽
Comment:

3. Both internal and external constituents participate in program planning. △○▽
Comment:

4. Programs are publicized and made available to appropriate groups and individuals. △○▽
Comment:

5. Program plans provide for a student-teacher ratio that is compatible with acceptable learning theory. △○▽
Comment:

6. Programs are reviewed annually and revised as appropriate. △○▽
Comment:

7. Programs are compatible with state-level planning, local/state board of education policies, and accrediting commission standards. △○▽
Comment:

8. Program planning incorporates appropriate and timely information from demographic studies of the employment community. △○▽
Comment:

9. Program planning incorporates appropriate and timely information from business and industry surveys. △○▽
Comment:

10. Program planning incorporates appropriate and timely information from labor market projections. △○▽
Comment:

11. Program planning incorporates appropriate and timely information from student interest surveys. △○▽
Comment:

12. Program planning incorporates appropriate and timely information from student placement records. △○▽
Comment:

13. Program planning incorporates appropriate and timely information from enrollment projections. △○▽
Comment:

C. Student Recruitment and Admission

1. Recruitment

a. An organized and systematic recruitment plan is utilized. △○▽
Comment:

b. Effective communication is maintained between the business department and the counseling department. △○▽
Comment:

c. Efforts are directed toward recruiting both males and females. △○▽
Comment:

d. Recruitment efforts are focused on the needs, interests, and objectives of individual students. △○▽
Comment:

e. Faculty members actively recruit students for the program. △○▽
Comment:

f. All students are encouraged to visit the business program area. △○▽
Comment:

2. Admission

a. The admission policy for the business program adheres to the institution's stated philosophy and purpose. △○▽
Comment:

b. Admission standards for business courses/concentrations are clearly stated, published, and made available throughout the school and community. △○▽
Comment:

c. Admission requirements reflect individual student abilities and interests. △○▽
Comment:

SUMMARY FOR PROFILE

29 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic III

CURRICULUM AND INSTRUCTION

The curriculum and instruction component of a business program is essential to the achievement of overall program goals and objectives.

Standard Statement

Curriculum and instruction are designed to reflect current theory, methods, and business practices and to address the needs of publics served.

A. Curriculum

1. Planning

a. The curriculum reflects the stated philosophy and objectives of both the business program and the school program. △○▽
Comment:

b. Representative groups involved in the development and revision of the curriculum include administrative and supervisory personnel, advisory committees, business faculty, and students. △○▽
Comment:

c. The curriculum includes provision to ensure that students achieve on the basis of competencies previously developed. △○▽
Comment:

d. The curriculum includes provision for interrelating the content of business courses with other school subjects. △○▽
Comment:

e. The curriculum is designed to develop student talent, creative ability, positive self-concept, and individual potential. △○▽
Comment:

f. The curriculum is designed to meet evolving needs of the employment community. △○▽
Comment:

g. The curriculum provides for articulation among levels of business education to ensure that students are permitted to progress on the basis of competencies developed. △○▽
Comment:

2. Development

a. Course content is developed from course objectives and reflects approved curriculum guides and other professional resources. △○▽
Comment:

b. The curriculum guide describes course offerings and appropriate course sequences. △○▽
Comment:

c. The curriculum guide is available to administrative and supervisory personnel. △○▽
Comment:

d. The curriculum guide is available to advisory committees and prospective employers. △○▽
Comment:

e. The curriculum guide is available and used by counselors. △○▽
Comment:

f. The curriculum guide is available and used by students. △○▽
Comment:

g. The curriculum is structured to meet the needs of students who are employment bound. △○▽
Comment:

h. The curriculum is structured to meet the needs of students who desire to seek further education. △○▽
Comment:

i. The curriculum is structured to meet the needs of students who desire to develop and enhance their personal business skills. △○▽
Comment:

3. Competencies

a. The curriculum provides opportunities for students to develop competencies and understandings related to <u>accounting</u> <u>positions</u>. △○▽
Comment:

b. The curriculum provides opportunities for students to develop competencies and understandings related to <u>administrative</u> <u>support positions</u>. △○▽
Comment:

c. The curriculum provides opportunities for students to develop competencies and understandings related to <u>information</u> <u>processing positions</u>. △○▽
Comment:

d. The curriculum provides opportunities for students to develop competencies and understandings related to <u>managerial</u> <u>positions</u>. △○▽
Comment:

e. The curriculum provides opportunities for students to develop competencies and understandings related to professional positions. △○▽
Comment:

f. The curriculum provides for development of skills and knowledge related to basic business understanding. △○▽
Comment:

g. The curriculum provides for development of skills and knowledge related to career awareness. △○▽
Comment:

h. The curriculum provides for development of skills and knowledge related to communication. △○▽
Comment:

i. The curriculum provides for development of skills and knowledge related to computation. △○▽
Comment:

j. The curriculum provides for development of skills and knowledge related to computer literacy. △○▽
Comment:

k. The curriculum provides for development of skills and knowledge related to data processing. △○▽
Comment:

l. The curriculum provides for development of skills and knowledge related to decision making. △○▽
Comment:

m. The curriculum provides for development of skills and knowledge related to business and economic literacy. △○▽
Comment:

n. The curriculum provides for development of skills and knowledge related to entrepreneurship. △○▽
Comment:

o. The curriculum provides for development of skills and knowledge related to information processing. △○▽
Comment:

p. The curriculum provides for development of skills and knowledge related to interpersonal behaviors. △○▽
Comment:

q. The curriculum provides for development of skills and knowledge related to keyboarding. △○▽
Comment:

r. The curriculum provides for development of skills and knowledge related to leadership. △○▽
Comment:

s. The curriculum provides for development of skills and knowledge related to management. △○▽
Comment:

t. The curriculum provides for development of skills and knowledge related to word processing. △○▽
Comment:

u. The curriculum provides for development of skills and knowledge related to work ethics. △○▽
Comment:

4. Target Groups

a. The curriculum is accessible to all students who can benefit including those who are academically disadvantaged. △○▽
Comment:

b. The curriculum is accessible to all students who can benefit including those who are academically average. △○▽
Comment:

c. The curriculum is accessible to all students who can benefit including those who are culturally different. △○▽
Comment:

d. The curriculum is accessible to all students who can benefit including those who are economically disadvantaged. △○▽
Comment:

e. The curriculum is accessible to all students who can benefit including those who are gifted/talented. △○▽
Comment:

f. The curriculum is accessible to all students who can benefit including those who are mentally/emotionally handicapped. △○▽
Comment:

g. The curriculum is accessible to all students who can benefit including those who are physically handicapped. △○▽
Comment:

h. The curriculum is accessible to all students who can benefit including those who are nontraditional. △○▽
Comment:

5. Review and Revision

a. The curriculum is reviewed annually and revised as necessary to reflect rapidly changing technology. △○▽
Comment:

b. The curriculum is reviewed annually and revised as necessary to reflect changing student populations. △○▽
Comment:

c. The curriculum is reviewed annually and revised as necessary to reflect labor market trends. △○▽
Comment:

d. The curriculum is reviewed annually and revised as necessary to reflect up-to-date instructional techniques/strategies. △○▽
Comment:

B. Course Objectives

1. Current course objectives are written in measurable terms, are presented to students, and are kept on file. △○▽
Comment:

2. Current course objectives are utilized by teachers and administrators for planning, implementing, and evaluating content and instructional methods. △○▽
Comment:

C. Instruction

1. Content

a. Current course guides are used by teachers in each class. △○▽
Comment:

b. Course guides include pre- and post-tests when applicable. △○▽
Comment:

c. Course guides outline major units of study. △○▽
Comment:

d. Course guides specify competencies to be acquired. △○▽
Comment:

e. Course guides specify the sequence of instructional activities. △○▽
Comment:

f. Course guides specify estimated time requirements for completing major units of study. △○▽
Comment:

g. Course guides specify instructional materials needed for completing major units of study. △○▽
Comment:

h. Course guides specify community resources needed for completing major units of study. △○▽
Comment:

i. Course guides specify a variety of evaluation methods based on stated competencies. △○▽
Comment:

j. Written lesson plans are available and used. △○▽
Comment:

2. Activities

a. Individual learning styles of students are accommodated through the use of a variety of courseware. △○▽
Comment:

b. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including data communications. △○▽
Comment:

c. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including demonstrations. △○▽
Comment:

d. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including discovery learning. △○▽
Comment:

e. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including field trips. △○▽
Comment:

f. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including hands-on learning. △○▽
Comment:

g. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including internships or related field experiences. △○▽
Comment:

h. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including lecture/discussion. △○▽
Comment:

i. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including oral presentations. △○▽
Comment:

j. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including problem solving. △○▽
Comment:

k. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including speakers. △○▽
Comment:

l. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including telecommunication. △○▽
Comment:

m. Individual learning styles of students are accommodated through the use of a variety of instructional activities and resources including videotex. △○▽
Comment:

n. Individual learning styles of students are accommodated through the use of a variety of delivery systems including open-entry, open-exit learning centers. △○▽
Comment:

o. Individual learning styles of students are accommodated through the use of a variety of delivery systems including networking. △○▽
Comment:

SUMMARY FOR PROFILE

76 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic IV

INSTRUCTIONAL STAFF

The professional competence and performance of the business faculty are significant factors in determining the overall quality of a program.

Standard Statement

The instructional staff for the business program demonstrate professional and technical competence in providing services necessary for attaining program goals and objectives.

A. Qualifications

1. Each faculty member possesses a minimum of a baccalaureate degree with a major in business from an accredited teacher education program. △○▽
Comment:

2. Each faculty member meets appropriate state standards of educational preparation and occupational experience for certification. △○▽
Comment:

3. Each faculty member meets established institutional criteria for employment. △○▽
Comment:

4. Each faculty member is qualified to teach the content of assigned courses. △○▽
Comment:

5. Each faculty member demonstrates acceptable written and oral communication skills. △○▽
Comment:

6. Each faculty member exhibits desirable human interaction skills. △○▽
Comment:

7. Each faculty member provides positive leadership in the classroom, school, community, and profession. △○▽
Comment:

B. Professionalism

1. Each faculty member maintains active membership in professional organizations for business teachers. △○▽
Comment:

2. Each faculty member attends professional meetings for business teachers each year. △○▽
Comment:

C. Staff Development

1. Each faculty member follows a written plan for professional development. △○▽
Comment:

2. Each faculty member participates in staff development activities. △○▽
Comment:

3. Staff development activities include an orientation program for new faculty. △○▽
Comment:

D. Evaluation

1. Teachers evaluate the effectiveness of their instruction. △○▽
Comment:

2. Evaluations of faculty are conducted regularly, based on established procedures that ensure equality of opportunity. △○▽
Comment:

3. Evaluation results are discussed with each faculty member. △○▽
Comment:

SUMMARY FOR PROFILE

15 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic V

FINANCIAL RESOURCES

Adequate financial resources are required to provide a comprehensive, quality business program.

Standard Statement

Availability and control of adequate financial resources ensure that the goals and objectives of the program are met.

A. Funding

1. A budget for adequate and regular funding is provided for equipment purchases. △○▽
Comment:

2. A budget for adequate and regular funding is provided for equipment maintenance. △○▽
Comment:

3. A budget for adequate and regular funding is provided for equipment replacement. △○▽
Comment:

4. A budget for adequate and regular funding is provided for instructional materials and supplies. △○▽
Comment:

5. A budget for adequate and regular funding is provided for staffing. △○▽
Comment:

6. A budget for adequate and regular funding is provided for professional development. △○▽
Comment:

7. A budget for adequate and regular funding is provided for contingencies. △○▽
Comment:

8. A complete listing of funding sources is made available to teachers with guidelines for procurement. △○▽
Comment:

B. Management

1. Faculty are involved in decisions related to the expenditure of departmental funds. △○▽
Comment:

2. Budgeted funds are expended to achieve program goals and objectives. △○▽
Comment:

3. An organized procedure for receipt, deposit, security, and management of funds is maintained. △○▽
Comment:

4. Up-to-date records of expenditures, receipts, and account balances are kept on file for use by authorized personnel. △○▽
Comment:

SUMMARY FOR PROFILE

12 Number of standards for this topic

____ Minus number marked <u>below</u> <u>standard</u>

____ Total number marked <u>meets</u> and <u>exceeds</u> <u>standard</u> (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic VI

INSTRUCTIONAL SUPPORT SYSTEMS

The availability and efficient use of up-to-date facilities, equipment, and materials are an indication of concern for effective instruction.

Standard Statement

Physical facilities and instructional resources provide a well-maintained and effectively-utilized learning environment.

A. Physical Facilities

1. Environmental Design

a. Physical facilities are adequate for achievement of program goals and objectives. △○▽
Comment:

b. Room or area layouts are of suitable size and location for the program. △○▽
Comment:

c. The learning environment in which training occurs is comparable to the actual work situation. △○▽
Comment:

d. The number of training stations is adequate for student enrollment. △○▽
Comment:

e. Appropriate work space is provided for each student station. △○▽
Comment:

f. Facilities and equipment accommodate the needs of handicapped persons. △○▽
Comment:

g. High quality illumination is well distributed, resulting in a minimum of glare and shadows. △○▽
Comment:

h. Facilities provide for control of artificial and natural illumination. △○▽
Comment:

i. Acoustical materials are used effectively on floors, walls, and ceilings in classrooms and laboratories to minimize noise. △○▽
Comment:

j. Sufficient markerboard and display space are provided. △○▽
Comment:

k. Adjustable height desks are used where appropriate. △○▽
Comment:

l. Adjustable posture chairs are used where appropriate. △○▽
Comment:

m. Voltage surge protectors are provided for electronic equipment. △○▽
Comment:

n. Electrical outlets in each room are controlled by a master switch. △○▽
Comment:

o. Appropriate faculty work space is provided. △○▽
Comment:

p. The faculty has convenient access to telephone service. △○▽
Comment:

q. Storage space for supplies and materials is adequate. △○▽
Comment:

r. Facilities are reviewed annually and modified as needed to support changes in course designs and emerging technologies. △○▽
Comment:

2. Utilization

a. A plan for maximizing equipment usage among faculty and departments is in effect. △○▽
Comment:

b. An accurate inventory of equipment is maintained. △○▽
Comment:

c. Students have adequate access to laboratory equipment. △○▽
Comment:

d. Business education faculty have adequate access to laboratory equipment. △○▽
Comment:

3. Care and Maintenance

a. Laboratories and classrooms are clean, orderly, and attractive. △○▽
Comment:

b. Facilities are supervised by a business teacher. △○▽
Comment:

c. Energy conservation is observed. △○▽
Comment:

d. Priorities are established for continuous maintenance and improvement of facilities. △○▽
Comment:

4. Safety

a. Facilities comply with statutes and regulations of local, state, and federal safety requirements. △○▽
Comment:

b. A safe electrical outlet system is provided. △○▽
Comment:

c. Halls, passageways, and exits are clearly labeled and free from obstructions. △○▽
Comment:

d. Plans for evacuation are posted in each classroom. △○▽
Comment:

e. Fire extinguishers are readily available and properly maintained. △○▽
Comment:

f. Fire alarms are in working condition. △○▽
Comment:

g. First-aid kits are available and maintained in usable condition. △○▽
Comment:

h. Safety precautions are taught in business classes. △○▽
Comment:

i. Emergency drills are conducted regularly. △○▽
Comment:

B. Instructional Resources

1. Equipment

a. Equipment reflects current and emerging business usage. △○▽
Comment:

b. Equipment appropriate for teaching essential job-related skills is provided. △○▽
Comment:

c. Equipment is maintained in operable condition. △○▽
Comment:

d. Appropriate criteria are followed in selecting equipment. △○▽
Comment:

e. Equipment is upgraded according to a planned replacement schedule. △○▽
Comment:

2. Supplies and Materials

a. Supplies and materials which incorporate current technology are available to support program objectives. △○▽
Comment:

b. Supplies and materials are comparable to those found in an actual work situation. △○▽
Comment:

c. Faculty members practice economy and conservation in the use of supplies and materials. △○▽
Comment:

d. A library of current textbooks, periodicals, reference manuals, and other appropriate materials is maintained. △○▽
Comment:

e. Instructional materials are free of age, cultural, and sex bias. △○▽
Comment:

f. Resource materials recommended by state and local education agencies are available. △○▽
Comment:

g. Appropriate criteria are followed in selecting instructional materials. △○▽
Comment:

h. Materials are available to meet the needs of special students such as the gifted, economically disadvantaged, and physically handicapped. △○▽
Comment:

SUMMARY FOR PROFILE

48 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic VII

PUBLIC RELATIONS

Informed and involved publics are essential components of a quality business education program.

Standard Statement

The public relations program is well planned, adequately funded, coordinated, continuous, and sensitive to the changing needs of business education publics. It communicates ideas simply and is appraised continuously.

A. Planning

1. A written public relations plan incorporating goals and objectives, a calendar of activities, and evaluation is available. △○▽
Comment:

2. Development of the plan involves students, faculty, advisory committee members, and administrators. △○▽
Comment:

3. Successful methods of improving public relations are employed. △○▽
Comment:

4. Resources to implement the public relations plan are adequate to meet the goals and objectives of the program. △○▽
Comment:

B. Publics

1. Internal Publics

a. An effective communication system is implemented. △○▽
Comment:

b. Each faculty member promotes positive public relations. △○▽
Comment:

c. Newsworthy items such as open houses, exhibits, student and faculty accomplishments, organization activities, and student job placements are given appropriate media coverage. △○▽
Comment:

d. Handbooks and brochures describing the business program are prepared and disseminated. △○▽
Comment:

e. Students, faculty, staff, and school administrators are well informed about business programs and activities. △○▽
Comment:

2. External Publics

a. The business program has an active advisory committee which is used in a consultative role. △○▽
Comment:

b. The advisory committee is organized to include representatives of the community such as employers and former students. △○▽
Comment:

c. The advisory committee meets on a scheduled, periodic basis and follows a planned agenda. △○▽
Comment:

d. Records of the advisory committee meetings are on file within the department and with appropriate administrators. △○▽
Comment:

e. The advisory committee reviews, evaluates, and makes recommendations regarding the business program. △○▽
Comment:

f. The advisory committee informs business educators of new technological developments and provides input to the selection of equipment, supplies, and instructional materials. △○▽
Comment:

g. Recommendations of the advisory committee are considered in program planning and implementation. △○▽
Comment:

h. The advisory committee cooperates with the business faculty in conducting community needs assessment surveys. △○▽
Comment:

i. Faculty members participate in local professional business organizations and community activities. △○▽
Comment:

j. A close working relationship exists between the school and business, industry, and other organizations. △○▽
Comment:

k. Faculty are available to serve as consultants to the community in areas such as company-sponsored training programs and office technology systems. △○▽
Comment:

l. Business and industrial personnel are given the opportunity to participate in business programs and activities. △○▽
Comment:

m. Faculty members maintain effective communication with representatives of local education agencies. △○▽
Comment:

n. Faculty members maintain effective communication with representatives of the State Department of Education. △○▽
Comment:

o. Faculty members maintain efrective communication with representatives of institutions of higher learning. △○▽
Comment:

SUMMARY FOR PROFILE

24 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic VIII

STUDENT DEVELOPMENT SERVICES

Through student development services, the institution provides for participation in vocational business student organizations, academic and career guidance, and job placement and follow-up.

Standard Statement

Student development services are available to all learners, including special populations such as handicapped persons, disadvantaged persons, and students with limited English skills.

A. Vocational Business Student Organizations

1. Structure

a. Vocational business student organizations are viewed as a vital part of the instructional program under the supervision of appropriate faculty. △○▽
Comment:

b. Students are encouraged to participate actively in vocational business student organizations. △○▽
Comment:

c. Vocational business student organizations provide opportunities for students to develop career-oriented competencies. △○▽
Comment:

d. Local chapters of vocational business student organizations are affiliated with respective state and national organizations. △○▽
Comment:

2. Support

a. The administration provides recognition and support for vocational business student organizations. △○▽
Comment:

b. Business faculty promote and participate in vocational business student organization activities. △○▽
Comment:

c. Time is provided for student organization meetings. △○▽
Comment:

B. Guidance Services

1. Student Assessment

a. Information about student aptitudes, achievements, and occupational interests is maintained for each student and is available to faculty. △○▽
Comment:

b. Business faculty members are involved in developing individualized educational plans for special needs students. △○▽
Comment:

2. Academic Guidance

a. Academic guidance is available to all students. △○▽
Comment:

b. Academic guidance is used to place students in appropriate programs and courses. △○▽
Comment:

3. Career Guidance

a. Guidance activities facilitate career awareness and orientation, career choice, career preparation, and career advancement. △○▽
Comment:

b. Students receive personal counseling and guidance. △○▽
Comment:

c. Students are made aware of training opportunities for nontraditional occupations. △○▽
Comment:

d. Students have access to job market information and placement opportunities. △○▽
Comment:

4. Placement and Follow-Up

a. Job placement includes preplacement preparation, assistance in locating jobs, and assistance in placement. △○▽
Comment:

b. A systematic plan for follow-up activities is implemented. △○▽
Comment:

c. Follow-up data which reflect job requirements, salary ranges, and employer-employee satisfaction are used for program evaluation and improvement. △○▽
Comment:

d. A cumulative record is maintained for each student. △○▽
Comment:

e. Business faculty assist placement specialists in the implementation and coordination of placement services. △○▽
Comment:

f. The resources and operation of placement and follow-up services are reviewed periodically and revised as necessary. △○▽
Comment:

SUMMARY FOR PROFILE

21 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic IX

EVALUATION

All business program elements are systematically and continuously examined and compared to standards. The standards in this document serve as bases for the evaluation of business programs. After data are collected and analyzed, findings may be disseminated and used for program revision.

Standard Statement

The business program is evaluated periodically and revised as necessary to ensure that the needs of the students and the business community are met.

A. Data Collection and Analysis

1. The evaluation process includes involvement of advisory committees, administrators/supervisors, employers, faculty, guidance counselors, students, and graduates. △○▽
   Comment:

2. The evaluation plan includes an assessment of each program goal compared to established standards. △○▽
   Comment:

3. Valid procedures are used to analyze data and identify discrepancies between the current program and selected standards. △○▽
   Comment:

4. Data are collected, analyzed, and interpreted as required by local, state, and federal mandates and/or agencies. ▽○△
Comment:

B. Dissemination and Utilization

1. Formative and summative evaluation results are disseminated to business teachers, appropriate boards/administrators, guidance counselors, the advisory committee, and/or other selected personnel. △○▽
Comment:

2. A written plan for program improvement is developed and implemented according to the needs reflected by evaluation results. △○▽
Comment:

SUMMARY FOR PROFILE

6 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

INSTRUCTIONAL STANDARDS FOR INFORMATION PROCESSING

Instructional Standards for Information Processing addresses excellence in the teaching of information processing with emphasis on data and word processing at the secondary, postsecondary, and adult levels. These standards are designed for use with Program Standards for Business Education. Instructional quality and effectiveness are continuing concerns of each institution.

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic I

ORGANIZATION

Instruction in information processing is organized to facilitate skill development for all students at appropriate levels.

A. Instruction in information processing is available to all students. △○▽
Comment:

B. Information processing is implemented through one or more organizational patterns (single course model; integrated model; complete curriculum model; and special-purpose, short-term, instructional models). △○▽
Comment:

C. Information processing instruction is organized to provide skill development at the awareness, operational, and/or competence level. △○▽
Comment:

SUMMARY FOR PROFILE

3 Number of standards for this topic

____ Minus number marked <u>below</u> <u>standard</u>

____ Total number marked <u>meets</u> and <u>exceeds</u> <u>standard</u>
(Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic II

CONTENT

The statements within this standard topic relate to content of the information processing instructional program. They address terminology, careers, information processing cycles and functions, hardware, software, trends and issues, employability knowledge and skills, employability traits and attitudes, computer literacy, management/supervision, computer programming, and integrated information systems. Course content reflects program objectives.

A. Terminology

1. Specialized vocabulary essential to information processing content is introduced, defined, and reinforced in context. △○▽
Comment:

2. Instruction includes planned evaluation to verify student mastery of vocabulary. △○▽
Comment:

B. Careers

1. The program provides for instruction related to career opportunities in information processing. △○▽
Comment:

2. The program provides for instruction related to knowledge, skills, and characteristics needed for entry-level positions in information processing. △○▽
Comment:

3. The program provides for instruction related to personal and professional qualifications needed for specific positions in information processing. △○▽
Comment:

4. The program provides for instruction related to knowledge, skills, and characteristics needed for advancement in information processing careers. △○▽
Comment:

5. The program provides for instruction related to interrelationships of various positions in information processing. △○▽
Comment:

6. The program provides for instruction related to the role of information processing in the job market of the future. △○▽
Comment:

7. The program provides for instruction related to employment information sources. △○▽
Comment:

8. Instruction includes planned evaluation to verify student mastery of content related to careers. △○▽
Comment:

C. Cycles and Functions

1. Instruction related to the information processing cycle includes the functions of preparation and verification of input. △○▽
Comment:

2. Instruction related to the information processing cycle includes the functions of interpreting and reacting to error messages. △○▽
Comment:

3. Instruction related to the information processing cycle includes the functions of manipulation of data in the processor unit. △○▽
Comment:

4. Instruction related to the information processing cycle includes the functions of verification and correction of output. △○▽
Comment:

5. Instruction related to the information processing cycle includes the functions of storage, retrieval, and transmittal of data using technologies such as micrographics, computer-assisted retrieval, fiber optics, facsimile transmission, communicating text editors, and electronic mail. △○▽
Comment:

6. Instruction includes planned evaluation to verify student mastery of content related to information processing cycles and functions. △○▽
Comment:

D. Hardware

1. Instruction related to hardware use includes procedures for proper handling and care. △○▽
Comment:

2. Instruction related to hardware use includes knowledge of the capabilities and limitations of input, central processing, output, and peripheral devices. △○▽
Comment:

3. Instruction related to hardware use includes strategies for troubleshooting. △○▽
Comment:

4. Instruction related to hardware selection includes methods of determining specific requirements. △○▽
Comment:

5. Instruction related to hardware selection includes procedures which reflect needs analysis, feasibility surveys, and vendor credentials. △○▽
Comment:

6. Instruction includes planned evaluation to verify student mastery of content related to selecting and using hardware. △○▽
Comment:

E. Software

1. Instruction related to software use includes proper handling and care. △○▽
Comment:

2. Instruction related to software use includes relevant applications (data base management, spread sheets, and word processing). △○▽
Comment:

3. Instruction related to software use includes knowledge of capabilities and limitations of software as related to job functions. △○▽
Comment:

4. Instruction related to software use includes procedures for filing and management of software. △○▽
Comment:

5. Instruction related to software selection includes the determination of specific application requirements. △○▽
Comment:

6. Instruction related to software selection includes consideration of needs analysis; canned, modular, and custom software; complexity and cost; vendor policies; and effectiveness of the instructional materials. △○▽
Comment:

7. Instruction related to software selection includes knowledge and implications of copyright laws. △○▽
Comment:

8. Instruction includes planned evaluation to verify student mastery of content related to selecting and using software. △○▽
Comment:

F. Trends and Issues

1. Instruction includes trends and issues relating to technological developments (such as portable data processing equipment, laser video disk storage, voice processing, mobile telephone, electronic cottage/telecommuting, videotex, integrated software, telecommunications, optical character recognition, computer graphics, robotics, networking, and artificial intelligence). △○▽
Comment:

2. Instruction includes trends and issues related to sociological impact of information processing on the workplace. △○▽
Comment:

3. Instruction includes trends and issues related to the legal implications of the electronic office. △○▽
Comment:

4. Instruction includes trends and issues related to human relations in information processing. △○▽
Comment:

5. Instruction includes trends and issues related to information access and control. △○▽
Comment:

6. Instruction includes issues related to computer ethics. △○▽
Comment:

7. Instruction includes trends and issues related to productivity measurement in information processing. △○▽
Comment:

8. Instruction includes trends and issues related to employee compensation and benefits in information processing. △○▽
Comment:

9. Instruction includes trends and issues related to employer expectations in information processing. △○▽
Comment:

10. Opportunities are provided for students to demonstrate creativity, imagination, and inquisitiveness about current trends and issues in information processing through the completion of individual and/or group projects. △○▽
Comment:

11. Instruction includes planned evaluation to verify student mastery of content related to trends and issues in information processing. △○▽
Comment:

G. Employability Knowledge and Skills

1. Instruction in information processing includes opportunities for students to develop and utilize concentration techniques. △○▽
Comment:

2. Instruction in information processing provides opportunities for students to set up a system; input data (keyboard); create documents; edit documents; and store, file, and print text. △○▽
Comment:

3. Instruction in information processing provides opportunities for students to plan, organize, and prioritize tasks to facilitate work flow. △○▽
Comment:

4. Instruction in information processing provides opportunities for students to recognize the multiplier effect of errors and subsequent excessive costs and wasted time. △○▽
Comment:

5. Instruction in information processing provides opportunities for students to meet or surpass appropriate production/error ratio requirements. △○▽
Comment:

6. Instruction includes planned evaluation to verify student mastery of content related to employability knowledge and skills. △○▽
Comment:

H. Employability Traits and Attitudes

1. Instruction in information processing provides opportunities for students to develop traits and attitudes required to cope with routine and repetitive tasks. △○▽
Comment:

2. Instruction in information processing provides opportunities for students to develop traits and attitudes required to exercise CARE in all phases of work. △○▽
Comment:

3. Instruction in information processing provides opportunities for students to develop traits and attitudes required to display attention to details in work being performed. △○▽
Comment:

4. Instruction in information processing provides opportunities for students to develop traits and attitudes required to work efficiently under pressure. △○▽
Comment:

5. Instruction in information processing provides opportunities for students to develop traits and attitudes required to work effectively under pressure. △○▽
Comment:

6. Instruction in information processing provides opportunities for students to develop traits and attitudes required to meet deadlines. △○▽
Comment:

7. Instruction in information processing provides opportunities for students to develop traits and attitudes required to use discretion in the use of confidential information. △○▽
Comment:

8. Instruction in information processing provides opportunities for students to develop traits and attitudes required to evaluate personal work habits. △○▽
Comment:

9. Instruction in information processing provides opportunities for students to develop traits and attitudes required to work productively with a variety of individuals including clients and coworkers. △○▽
Comment:

10. Instruction in information processing provides opportunities for students to develop traits and attitudes required to interact courteously in all situations. △○▽
Comment:

11. Instruction in information processing provides opportunities for students to develop traits and attitudes required to adapt productively to rapidly changing demands. △○▽
Comment:

12. Instruction in information processing provides opportunities for students to develop traits and attitudes required to complete assignments accurately and thoroughly. △○▽
Comment:

13. Instruction in information processing provides opportunities for students to develop traits and attitudes required to exhibit self-starter traits. △○▽
Comment:

14. Instruction in information processing provides opportunities for students to develop traits and attitudes required to work alone or as a team member over a sustained period of time to the successful completion of an assignment. △○▽
Comment:

15. Instruction in information processing provides opportunities for students to develop traits and attitudes required to recognize when to ask for assistance. △○▽
Comment:

16. Instruction in information processing provides opportunities for students to develop traits and attitudes required to work effectively on special projects when requested. △○▽
Comment:

17. Instruction in information processing provides opportunities for students to develop traits and attitudes required to accept and use constructive criticism. △○▽
Comment:

18. Instruction in information processing provides opportunities for students to develop traits and attitudes required to exhibit enthusiasm. △○▽
Comment:

19. Instruction in information processing provides opportunities for students to develop traits and attitudes required to exhibit self-confidence. △○▽
Comment:

20. Instruction in information processing provides opportunities for students to develop traits and attitudes required to employ initiative and imagination. △○▽
Comment:

21. Instruction in information processing provides opportunities for students to develop traits and attitudes required to demonstrate loyalty. △○▽
Comment:

22. Instruction in information processing provides opportunities for students to develop traits and attitudes required to demonstrate punctuality. △○▽
Comment:

23. Instruction in information processing provides opportunities for students to develop traits and attitudes required to demonstrate dependability. △○▽
Comment:

24. Instruction in information processing provides opportunities for students to develop traits and attitudes required to demonstrate inquisitiveness. △○▽
Comment:

25. Instruction includes planned evaluation to verify student mastery of content related to employability traits and skills. △○▽
Comment:

I. Computer Literacy

1. The application of computer technology as used in business is incorporated into the instructional process. △○▽
Comment:

2. Instruction in computer literacy focuses on personal and job uses which enable persons to understand fundamental computer terminology. △○▽
Comment:

3. Instruction in computer literacy focuses on personal and job uses which enable persons to explain how information is processed both manually and by a computer system. △○▽
Comment:

4. Instruction in computer literacy focuses on personal and job uses which enable persons to describe the impact of computer technology on industry, business, government, society, and the individual. △○▽
Comment:

5. Instruction in computer literacy focuses on personal and job uses which enable persons to identify current trends and issues dealing with computer technology. △○▽
Comment:

6. Instruction in computer literacy focuses on personal and job uses which enable persons to recognize how computers may be used as management tools. △○▽
Comment:

7. Instruction in computer literacy focuses on personal and job uses which enable persons to describe major differences and similarities of mainframes, minicomputers, and microcomputers. △○▽
Comment:

8. Instruction in computer literacy focuses on personal and job uses which enable persons to identify computer capabilities and limitations. △○▽
Comment:

9. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to determine when computer use is appropriate. △○▽
Comment:

10. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to write simple programs in BASIC or other appropriate languages. △○▽
Comment:

11. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to use a computer to solve problems. △○▽
Comment:

12. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to prepare data for input into a computer system. △○▽
Comment:

13. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to verify the accuracy of input data. △○▽
Comment:

14. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to interpret computer-generated reports. △○▽
Comment:

15. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to operate electronic data communications systems. △○▽
Comment:

16. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to use the computer for business and personal applications such as records management and communication. △○▽
Comment:

17. Instruction in computer literacy provides for appropriate experiences with the computer which enable persons to evaluate software applications. △○▽
Comment:

18. Instruction includes planned evaluation to verify student mastery of content related to computer literacy. △○▽
Comment:

J. Management/Supervision

1. Instruction incorporates the basic principles of management related to current and evolving technological advances. △○▽
Comment:

2. Instruction incorporates the basic principles of management related to the role and relationship of the information system to each of its subsystems. △○▽
Comment:

3. Instruction incorporates the basic principles of management related to ergonomics (productive use of equipment, workflow, and people). △○▽
Comment:

4. Instruction incorporates the basic principles of management related to roles and responsibilities of information processing personnel. △○▽
Comment:

5. Instruction incorporates the basic principles of management related to personnel selection, training, and evaluation. △○▽
Comment:

6. Instruction incorporates the basic principles of management related to patterns of people interaction. △○▽
Comment:

7. Instruction incorporates the basic principles of management related to productivity measurement. △○▽
Comment:

8. Instruction incorporates the basic principles of management related to costs and benefits of office operations. △○▽
Comment:

9. Instruction incorporates the basic principles of management related to centralization/decentralization of control. △○▽
Comment:

10. Instruction incorporates the basic principles of management related to the decision-making process. △○▽
Comment:

11. Instruction includes planned evaluation to verify student mastery of content related to management/ supervision of information processing. △○▽
Comment:

K. Computer Programming

1. Instruction in computer programming includes the function of programming in an information processing system. △○▽
Comment:

2. Instruction in computer programming includes the advantages, disadvantages, and applications of various programming languages. △○▽
Comment:

3. Instruction in computer programming includes planning for volume work. △○▽
Comment:

4. Instruction in computer programming includes loading, testing, and executing computer programs. △○▽
Comment:

5. Instruction includes planned evaluation of student mastery of content related to computer programming. △○▽
Comment:

L. Integrated Information Systems

1. Instruction includes the concept of integrated information systems and subsystems of originating, processing, communicating, storing, and retrieving. △○▽
Comment:

2. Instruction in integrated information systems includes capabilities and limitations of automation systems △○▽
Comment:

3. Instruction in integrated information systems includes interrelationships of data, word, voice, and graphics/image processing. △○▽
Comment:

4. Instruction in integrated information systems includes the concept of the expanded office environment. △○▽
Comment:

5. Instruction in integrated information systems includes the process of information work flow. △○▽
Comment:

6. Instruction in integrated information systems includes advantages and limitations of various configurations such as distributed processing. △○▽
Comment:

7. Instruction includes planned evaluation of student mastery of content related to integrated information systems. △○▽
Comment:

SUMMARY FOR PROFILE

113 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic III

RELATED CONTENT

To function effectively in a technological society, all students must have adequate skills in keyboarding and communication. This standard topic addresses these needs.

A. Electronic keyboarding

1. Instruction in electronic keyboarding provides opportunities for all students to develop keyboarding skills. △○▽
Comment:

2. Instruction in electronic keyboarding provides opportunities for all students to maintain keyboarding skills. △○▽
Comment:

3. Instruction includes planned evaluation of student mastery of content related to electronic keyboarding. △○▽
Comment:

B. Communication

1. Instruction in written communication includes correct grammar, spelling, punctuation, capitalization, and expression of numbers. △○▽
Comment:

2. Instruction in written communication includes proofreading. △○▽
Comment:

3. Instruction in written communication includes document composition and formatting. △○▽
Comment:

4. Instruction in written communication includes editing and revising. △○▽
Comment:

5. Instruction in oral communication is provided to develop effective telephone techniques. △○▽
Comment:

6. Instruction in oral communication is provided to develop skills in researching, developing, and organizing a presentation. △○▽
Comment:

7. Instruction in oral communication is provided to develop effective dictation techniques. △○▽
Comment:

8. Instruction in oral communication is provided to develop skill in participating in group discussions and meetings. △○▽
Comment:

9. Instruction in oral communication is provided to develop correct enunciation and pronunciation. △○▽
Comment:

10. Instruction in oral communication is provided to develop listening skills needed in machine transcription. △○▽
Comment:

11. Instruction in oral communication is provided to develop listening skills needed in taking dictation. △○▽
Comment:

12. Instruction in oral communication is provided to develop listening skills needed in telecommunicating. △○▽
Comment:

13. Instruction in oral communication is provided to develop skills in giving clear directions and explanations. △○▽
Comment:

14. Instruction in oral communication is provided to develop listening skills needed in comprehending directions. △○▽
Comment:

15. Instruction in oral communication is provided to develop listening skills needed in participating in presentations and discussions. △○▽
Comment:

16. Instruction in communication is provided to develop the ability to follow directions. △○▽
Comment:

17. Instruction in communication is provided to develop the ability to use specialized information processing vocabularies. △○▽
Comment:

18. Instruction in communication is provided to develop the ability to read and interpret software and hardware instructions. △○▽
Comment:

19. Instruction in communication is provided to develop the ability to analyze and summarize information or data. △○▽
Comment:

20. Instruction in communication is provided to develop the ability to sequence related ideas and events in a logical arrangement using applications such as calendaring. △○▽
Comment:

21. Instruction includes planned evaluation of student mastery of content related to communication. △○▽
Comment:

SUMMARY FOR PROFILE

24 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic IV

METHODS AND RESOURCES

The statements within this topic area relate to instructional strategies for teaching information processing. These activities reflect a variety of organized methods and resources ranging from in-school experiences to on-the-job training.

A. A variety of methods and resources are used for instruction including hands-on activities. △○▽
Comment:

B. A variety of methods and resources are used for instruction including computer-assisted instruction (CAI) and computer-managed instruction (CMI). △○▽
Comment:

C. A variety of methods and resources are used for instruction including networking. △○▽
Comment:

D. A variety of methods and resources are used for instruction including site visits. △○▽
Comment:

E. A variety of methods and resources are used for instruction including guest speakers from business/ industry. △○▽
Comment:

F. A variety of methods and resources are used for instruction including audiovisual tutorial aids. △○▽
Comment:

G. A variety of methods and resources are used for instruction including independent reading. △○▽
Comment:

H. A variety of methods and resources are used for instruction including field experience (work experience). △○▽
Comment:

I. A variety of methods and resources are used for instruction including vendor demonstrations. △○▽
Comment:

J. A variety of methods and resources are used for instruction including video tapes of specific/ general information processing operations and procedures. △○▽
Comment:

K. A variety of methods and resources are used for instruction including information processing research projects. △○▽
Comment:

L. A variety of methods and resources are used for instruction including slides, filmstrips, and films. △○▽
Comment:

M. A variety of methods and resources are used for instruction including displays of vendor manuals and brochures. △○▽
Comment:

N. Instructional plans specify methods and resources to be employed. △○▽
Comment:

O. Methods and resources are selected to encourage development of student creativity and originality. △○▽
Comment:

P. Problem-solving skills are introduced, developed, and applied in the instructional process. △○▽
Comment:

Q. A variety of activities and software are used to demonstrate the capability and flexibility of information processing equipment. △○▽
Comment:

R. Appropriate visuals (graphs, charts, flowcharts, diagrams) are used as tools for teaching problem solving. △○▽
Comment:

S. Work stations include appropriate information processing equipment and courseware. △○▽
Comment:

T. Hands-on applications include both individual and team activities. △○▽
Comment:

U. Opportunities to develop and evaluate student employability skillegrated into each course. △○▽
Comment:

SUMMARY FOR PROFILE

21 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic V

INSTRUCTIONAL SUPPORT SYSTEMS

The statements within this standard topic cover support systems required to provide quality instruction in information processing. These support systems include instructional staff, instructional materials, and equipment.

A. Staff

1. Faculty maintain liaison with information processing specialists, members of professional organizations, community business leaders, and other educators. △○▽
Comment:

2. Each faculty member who teaches information processing is qualified through education and/or experience to teach the content. △○▽
Comment:

3. Each faculty member who teaches information processing demonstrates proficiency in the operation of electronic information processing equipment. △○▽
Comment:

4. The faculty keep up to date on information processing concepts, trends, curriculum, materials, equipment, software development, and evaluation techniques (i.e., college courses, professional meetings, in-service and sponsored workshops, occupational experience, and professional journals). △○▽
Comment:

B. Materials

1. An up-to-date information processing library is maintained (i.e., books, trade and professional journals, vendor publications, reference and audiovisual materials, and software). △○▽
Comment:

2. Information processing materials reflecting current technology are used. △○▽
Comment:

3. Information processing materials including software are appropriate to content and level of instruction. △○▽
Comment:

4. Qualified persons use appropriate criteria to select information processing courseware. △○▽
Comment:

5. Adequate courseware is available to support information processing program objectives. △○▽
Comment:

6. Instructional courseware is comparable to that found in business. △○▽
Comment:

7. Information processing faculty emphasize economy and conservation in the use of supplies. △○▽
Comment:

8. Information processing courseware is free of bias with respect to age, culture, and sex. △○▽
Comment:

C. Equipment

1. Appropriate equipment is used for developing information processing competencies. △○▽
Comment:

2. Information processing equipment reflects current and emerging business usage. △○▽
Comment:

3. Information processing equipment is kept in operable condition. △○▽
Comment:

4. Information processing equipment is purchased according to a planned and documented replacement and priority schedule. △○▽
Comment:

5. Qualified persons select information processing equipment. △○▽
Comment:

6. Appropriate criteria are used in the selection of information processing equipment. △○▽
Comment:

7. Information processing equipment is scheduled to provide maximum student use. △○▽
Comment:

8. Information processing laboratories are equipped with telecommunication capabilities. △○▽
Comment:

9. Information processing equipment is available for noninstructional uses when time permits. △○▽
Comment:

SUMMARY FOR PROFILE

21 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

Substantially:
Exceeds Standard △
Meets Standard ○
Below Standard ▽

Standard Topic VI

EVALUATION

The statements contained within this standard topic concern the evaluation of instruction in information processing. The statements reflect the importance of instructional planning and implementation.

A. Instruction in information processing is evaluated on the basis of stated learning objectives. △○▽
Comment:

B. Standards for evaluating information processing instruction reflect student and employer needs. △○▽
Comment:

C. Standards for evaluating information processing instruction reflect the use of acceptable education methods. △○▽
Comment:

D. Each teacher evaluates his/her instruction on a planned, regular basis. △○▽
Comment:

E. Program evaluation results are shared with faculty, students, advisory committee members, and administrators. △○▽
Comment:

F. Evaluation results are used as a basis for program revision. △○▽
Comment:

SUMMARY FOR PROFILE

6 Number of standards for this topic

____ Minus number marked below standard

____ Total number marked meets and exceeds standard (Use this total to fill in the bar graph for this standard topic on the Business Education Program Profile.)

SUMMARY OF COMMENTS

ACKNOWLEDGMENTS

Four major categories of professionals contributed to and participated in the development of the standards: (1) project staff, (2) advisory groups and consultants, (3) company and agency representatives, and (4) validation participants.

Special appreciation is expressed to the National Business Education Association for its contributions to the development of the standards. The organization's executive board and executive director and staff provided support throughout the duration of the project. NBEA, in cooperation with the Business Education Division of AVA and Delta Pi Epsilon, assumed responsibility for conducting the validation of the standards. NBEA also duplicated the draft standards and prepared camera-ready copy for the final set of standards.

Business Education supervisors at secondary, postsecondary, and adult levels throughout the country supplied State standards, curriculum guides, State plans, competency catalogs, and course materials. Merle Wood, San Francisco State University, provided invaluable assistance and materials from the California Computer Literacy Project.

Mr. Steve Murphree, Marketing Manager, National Marketing Division, IBM Corporation, Greenville, North Carolina, loaned a personal computer for use by project personnel.

Standards Project Staff

The East Carolina University educators and staff listed below participated in the development of the project for all or part of its eighteen-month duration.

Project Director

Calfrey C. Calhoun

Associate Project Directors

Alton V. Finch
James L. White

Assistant Project Directors

Thadys J. Dewar
Betsy H. Harper

Research Assistants

Elizabeth D. Corbin
Patricia B. Stallings

Secretary

Corinne H. Swayze

Advisory Groups and Consultants

Three major groups advised the project staff as the standards were developed: (1) a national Technical Advisory Group, (2) a Local Advisory Group, and (3) three consultants.

The Technical Advisory Group was composed of educators and representatives from business, industry, education, and professional organizations. The members met twice in group meetings and provided additional feedback and guidance on an individual basis. They assisted in the development of topical areas and reviewed the standards from the point of inception to the final validation. The members of this group made a highly valuable contribution to the project and are recognized here.

- Burke Barbee, Vice President, Wachovia Bank & Trust Company, Greenville, North Carolina
- O. J. Byrnside, Jr., Executive Director, National Business Education Association, Reston, Virginia
- William E. Dugger, Professor, Vocational & Technical Education, Virginia Polytechnic Institute and State University, Blacksburg, Virginia
- Mary Floyd, Systems Manager, Office Automation, First National Bank, Atlanta, Georgia
- Anne Matthews, Chief, Program Planning and Development, Division of Vocational Education, State Dept. of Education, Columbia, South Carolina
- Edward Miller, President and Chief Executive Officer, Future Business Leaders of America/Phi Beta Lambda, Washington, DC
- Gay Sweet-Harris, Teacher-Coordinator, Vocational Office Education Cooperative Training, San Antonio, Texas
- David Weaver, Vice President and General Manager, Gregg Publishing Division, McGraw-Hill Book Company, New York, New York
- Merle Wood, Director, Center for Business Teachers, School of Education, San Francisco State University, San Francisco, California

The Local Advisory Group was composed of twelve representatives from business, industry, and education in North Carolina. All members offered expertise in areas important to the project and served without compensation. These persons are recognized as follows.

- Lorraine Allen, Business Teacher, Arendell Parrott Academy, Kinston, North Carolina

- Denise W. Askew, Business Teacher, Roanoke-Chowan Technical College, Ahoskie, North Carolina

- Janice Buck, President, Buck Supply Company, and Mayor, City of Greenville, Greenville, North Carolina

- Joyce Cherry, Chairperson, Business Division, Lenoir Community College, Kinston, North Carolina

- John Keely, Chairman, NC Business Education Advisory Committee, Winston-Salem, North Carolina

- Barbara Mobley, Business Teacher, Williamston High School, Williamston, North Carolina

- Stephen P. Murphree, Marketing Manager, National Marketing Division, IBM Corporation, Greenville, North Carolina

- Jean Overton, Program Coordinator, Business Occupations, NC Department of Community Colleges, Raleigh, North Carolina

- Jim Palermo, Senior Vice President, Management Services Division, North Carolina National Bank Corporation, Charlotte, North Carolina

- Diane Paramore, Manager, Word Processing Center, School of Medicine, East Carolina University, Greenville, North Carolina

- Troye Wallace, Manager, Word Processing Center, Burroughs Wellcome Pharmaceuticals, Greenville, North Carolina

- Linda Wilms, Instructor, Pitt Community College, Greenville, North Carolina

Three consultants advised the project staff on procedures and standards statements through meetings, informal telephone conversations, and correspondence. Their assistance was valuable to the project and they are recognized as follows:

- June Atkinson, Chief Consultant, Business and Office Education, NC State Department of Public Instruction, Raleigh, North Carolina

- Lucille Stoddard, Executive Vice President, Utah Technical College, Provo, Utah

- Kay Wagoner, Professor, Department of Business Education, Ball State University, Muncie, Indiana

Company and Agency Representatives

The following companies and government agencies supplied information and assistance during site visits by the project staff:

U. S. Department of Health and Human Services, Office of the Secretary, Washington, DC; Wally Keene, Director, Office of Computer and Information Systems; and Luther Turner, Chief, Executive Development

U. S. Naval Sea Systems Command, Office Automation Systems Division, Crystal City, VA; Barbara Young, Manager

Blue Cross Blue Shield, Group Hospitalization, Inc./Medical Services of DC, Washington, DC; Thomas P. Ogden, Manager

NASA Headquarters, Office of Employee Development and Training, Washington, DC; Clifford Woods and Ann Marie Trotta

Xerox Corporation, Washington, DC; Gretchen Wharton, Sales Planning Manager for Navy Operations; and Lynn Wible, Area Training Manager for Federal Government

Tampa Electric Company, Tampa, FL; Marian Wilkinson, Manager, Office Systems; Cynthis Riddell, Word Processing Supervisor

Metropolitan Life Insurance Company, Tampa, FL; Joan King, Word Processing Supervisor

Critikon, Division of Johnson & Johnson, Tampa, FL; Mary Tucker, Word Processing Supervisor

General Telephone Company of Florida, Tampa, FL; Bonnie Kline, Administrative Services Supervisor--Information Processing

Price Waterhouse, Tampa, FL; Ginger Haskins

South-Western Publishing Company, Cincinnati, OH; Dale Klooster, Assistant Vice President and Director of Electronic Publishing

General Accounting Office, Virginia Beach, VA; Joe Stevens, Manager; and Jim Windchitl, GAO Recruiter

International Harvester, Inc. Headquarters, Chicago, IL; Camille L. Grezczyk, Manager, Distributed Systems Support; Jeff Grant, Manager, Applications Development; and Diana Bourke, Manager, Information Resources Center

Validation Participants

Five hundred and twenty-one business educators participated in an empirical validation of the standards through workshops or by mail. These individuals are recognized by State.

ALABAMA
- Linda W. Acker
- Helen Clements
- Martha Hedley
- Betty Lou Kendall
- Jean Delores Jones
- Catharine H. Long
- Jeannine Mason
- Betty W. Murphree
- Ethel C. Rosser
- Ann C. Stone
- Elise Toombs
- Sandra Yelverton

ALASKA
- Teresa E. Thomas

ARIZONA
- Kay Baker
- Fran Burgess
- Marguerite Ross Cowan
- Janet Gandy
- Shirley Gaul
- Nancy B. Hall
- Lois Halligan
- Jo Ann Hennington
- Carolyn Herold
- Eleanor M. Imhoff
- Carol Ann Jennings
- Linda E. Lewis
- Robert B. Mitchell
- Beverly Oswalt
- Terry Rothery
- Rich Russell
- Theresa M. Savarese
- Phyllis Smith
- Randle Tomlinson

CALIFORNIA
- David Dauwalder
- Charles J. Inacker
- Joyce McLean
- Genita Wall Pacely
- Doris B. Rausch
- Susan Reese
- Terrence F. Rieger
- Nate Rosenberg
- Anne E. Larson Schatz
- David H. Shade
- Robert J. Thompson

CANADA
- Sandra Ubelacker

COLORADO
- Arleene D. Anderson
- Dorothy Dent
- Russell G. DeVriendt
- Edith M. Evans
- Jerry F. Goddard
- Carroll R. Harr
- Cheryl Heinzerling
- Betty G. Hosman
- Rodney V. Linn
- Linda McMullan
- Anna Pena-Wickard
- Harvey Rothenberg
- Anita T. Salazar
- Edna Schifferns

CONNECTICUT
- A. W. Boulden
- Joan S. Briggaman
- George Claffey
- Diana P. Duarte
- Mary Giffin
- William Hoyt
- Henrietta C. Montagna
- Elizabeth A. Regan
- August R. Tomasetti
- Ann B. Wheeler

DELAWARE
- Jane E. Logan
- Joann E. Roark
- Carol Hughes Ryan
- Fred W. Wiedmann

DISTRICT OF COLUMBIA
Mattie Cheston Colson
Courtney L. Fletcher
Geraldine G. Hall
Louis T. Harding
Eddie Lee Mims
Dolores M. Parker
Otelia C. Redman
James H. Wykle

FLORIDA
Sherrie J. Burke
Mae K. Chewning
Phyllis Devine
M. W. Durso
Lupe Ferran
Anne Gillmore
Charles E. Head
Nita Irene Heck
Melvin A. Johnson
Carl F. Lam
Linda Mallinson
Sandra Oliver
Robert E. Robinson
Linda A. Slaugh
Shirley W. Stacey
Shirley Demmi Ziegler

GEORGIA
Janet G. Adams
Katrina Baranko
Lisa W. Burris
Deloris Gaddie
Mary Lou Lamb
Cynthia P. Lyon
Helen Cofer McClain
Donnie J. McGahee
Jim Smiley
Vickie Johnson Stout
Helen W. Taylor
Janette V. Williams

HAWAII
Richard Aadland
Elena M. Bumanglag
Linda N. Kishinioto
Shirley Imada Metcalf
Helene Shinjo
Yuki Toyama

IDAHO
Darien V. Hartman
Dan Petersen
Charlene Schilling

ILLINOIS
Wilma Jean Alexander
Charlotte Atkins
Anna Marie Brummett
Doris H. Crank
David Grof
Doris Hudson
Bruce Johnson
Alfred C. Kaisershot
Roger L. Luft
Horace D. Marvel
Ann L. Meyer
Margaret A. Morton
Darlene C. Pibal
Martha Price
Robert Richards
Jan Robinson
Janice L. Schoen
Robert A. Schultheis
Daniel R. Wunsch

INDIANA
Clora Mae Baker
Lana L. Bunner
Barbara N. Crowder
Leona M. Gallion
Linda Joan Harkin
Richard E. Housel
Curtis J. Kinney
J. D. Lee
John P. Manzer
Sharon A. Most
Ann Palmer
Larry L. Shinn

IOWA
Anita Ellingson
Nola Hanson
Betty D. Jackson
Marilyn E. Price
Jack C. Reed
Miriam Shipman
Gene Wanek
Patricia Ward
Rose M. Wilcox

KANSAS
Patty L. Housh
Darlene R. Jones
Charlene M. Lind
Susan Owen
Karen Wingfield

KENTUCKY
Ray D. Bernardi
Charles L. Bright
Ruth V. Cornett
Mary Crisp
Nancy Groneman
Carol D. Groppel
Tom Seymour
Kawanna J. Simpson

LOUISIANA
Sue Anderson
Lorenza J. Balthazar*
Anna Bennington*
Sallye S. Benoit
Kathye Blackburn
Connie Buck
Adele M. Bulliard*
Saundra Chance
Lillian W. Clarke
Sonja B. Dupois
Gwendolyn M. Ellis
Ginger B. Francis
June Greene
Betty A. Kleen
Gerald Lathan
Mary L. Little
Jonie Ponthieux*
Joe M. Pullis
Janet Clement Toups
Phyllis M. Williams

MAINE
Robert E. Boose
Raynald A. Martin

MARYLAND
Sylvia A. Barto
Jeanann S. Boyce
Donna Carr
Janet Moye Cornick
Sister Carol Haag
June Holland
Judy Law
Anna Nemesh*
Hazel Outing
Robert M. Peters
Leah R. Pietron*
Jeanne Hagarty Rader
Sara L. Rodman
Nancy Sullivan
Freeda E. Thompson
Sharyn G. Warren

MASSACHUSETTS
Paul L. Carbone
Geraldine A. Fera
Charlotte R. Hellman
Phyllis S. Lary
Marie J. Lynch

MICHIGAN
Tommie V. Johnson
Joan R. Most
Robert A. Ristau

MINNESOTA
Laura L. BeMent
Julie C. Cartie
Thomas B. Duff*
Joan Flood
Frances Good
Kenneth L. Gorman
Charles R. Hopkins*
Ellis J. Jones
Debra Kay Kellerman*
Diane D. Lewis
Donald A. MacRae
Joyce MacRae
Patricia A. Merrier*
Roseann Schoonmaker
Dee Serien
Jack Sullivan
Susan Switzer

MISSISSIPPI
Patti S. Abraham
Connie Baddley
Lela Delaney
Shirley Nell Goodman
Harold Harris
Mildred Lester
John F. Perry, Jr.
Lillian B. Putnam
Eunice T. Smith
Sarah Marie Smith
Bruce Stirewalt
Bobbie N. Walton

MISSOURI
Shirley Breeze
Jackie Burkhart
Donald R. Davis
Lonnie Echternacht
Ann Franklin
Mary Jane Lang

*Indicates individuals who administered validation workshops.

Elizabeth Mauzey
Jeanette Montgomery
Charles A. Newman
Leah Rose Pietron
Carolyn Rainey
Barbara R. Schulz
Velma J. Siard
Anne Tompkins
Jerry Vittetoe

MONTANA
Patricia Barney
Linda Cotton
Sue Ebing
Lillian A. McCammon
Diane Murray
Bill Patton
Marion L. Reed
Terry Thomas
Willard R. Weaver
Carolyn Woodbury

NEBRASKA
Guyla Armstrong
Roger Feuerbacher
Ann Masters
Galen W. Miller
James L. Nebel
Joseph A. Nebel
Verda Rauch
Bonnie Sibert
Sharon VanCleave

NEVADA
Jo Anne G. Dain
Muriel E. Dodds
Evelyn Miller
Charles Stamps
Nita Stonestreet
Leola A. Tucker

NEW JERSEY
Marzella Allen
Vincent J. Capraro
Sylvia Cummin
Michael G. Curran, Jr.
Mary Lynn Fracaroli
Pat A. Gallo
Sheila Offman Gersh*
Jack R. Jones
Rodney G. Jurist
C. C. Kingston
Carolyn V. Norwood
Albert D. Rossetti
Lois V. Rossetti*
Barbara E. Schuch
Annell L. Simcoe
John A. Wanat
Barbara W. Williams

NEW MEXICO
Ernestine Moore
Margaret Wilson

NEW YORK
Mary M. Adams
Mary Frances Anthony
Dianne M. Cuzzone
Millie Frandino
Gregory W. Gray
Joseph P. Indresano
Robert Lundberg
Joan A. Lundgren
Bonnie L. MacGregor
Deborah Jean Morris
Cecil D. Ratliff
Renee Remsen
Padmakar M. Sapre
Carol Wardlaw

NORTH CAROLINA
Roy B. Allen
Helen Baugess
Joan E. Belk*
Marianne Belk
Jeanette Bell
Grace C. Black
Hattie J. Blue*
Deborah Blum
Earlene O. Bost
Phyllis W. Brock
Kathleen S. Brown
John M. Bunch
Phyllis Burns
Marion B. Byrd
Laura K. Cagle
Joyce G. Cherry
Treva Clayton
Ruth D. Cobb
Sandy Crater
Rhonda Davis
Linda Long Dowd
Ella H. Fisher
Clara J. Fowler
Lois E. Frazier
Anne L. Gasperson
Edwina E. Gross
T. C. Hall*
Frances C. Haney
Jamesenia Hedgepeth

Christine W. Hendrick
Jean R. Holley
Lou Hurdle
Anne K. Jackson
Joyce M. Keller
Betty H. Lowery
Florence Arant Miller
Beulah Monroe
Hallie Gilbreath Myers
Jaquitha R. Reid
Carol Rinehardt
Daphne Robinson
Wanda L. Russell
Diane Ryon
Nancy Sasnett
Lillian M. Sharpe
Sheila P. Sisk
Paula Stone
Pam Strickland*
Veda S. Stroud
Jim Taylor
Eleanor P. Terrill
Mary M. Thompson
Piney C. Tice
Pat Turner
Willie L. Vincent
Paula Walker
Eva C. Williams
Julia K. Williams
Paige Williams*
Verita B. Woods

NORTH DAKOTA
Robert Gette
Jerald B. Lydeen
Julie Morben
James L. Navara
Frank Praus
Lila Prigge
Sally Tanner
Janis L. Wallender
Arlen Walz

OHIO
Don Bright
Charlotte Coomer
William J. Dross
Dorothy Goodman
Lillian King
Eve Lewis
Nelson D. Madden
Anthony G. Porreca
Ginger Rose
Faye Tipton
Wayne T. Tipton

OKLAHOMA
Beverly C. Archer
Amanda Copeland
Jerrie S. Crummett
Sandy DeLaughter
Betty C. Fry
Beverly Gilmore
Lisa A. Tuder

OREGON
Susan S. Bates
Patricia J. Deane
Henry C. Endler
Greg Harpole
Shirley A. King
Margaret McDonnall Stamps

PENNSYLVANIA
Jane Friede
Terry Fucci
Barbara Klink
Margaret S. Miller
Phyllis Morrison
Joanne S. Patti
Barry Sheller

PUERTO RICO
Margarita Caraballo
Wilma Betancourt Maldonado

RHODE ISLAND
Robert G. Brooks*
Mary R. Fasano*

Patricia A. Johnson
Robert L. McCracken
Lillian Ridgewell
Clay V. Sink
Eileen Zisk

SOUTH CAROLINA
Sally Baumeister
Carolyn H. Berry
Ester L. Bright
Katherine Cliatt
Ann A. Cooper
Alice P. Creel
George A. Devlin
Lynda P. Hawkins*
Ruth C. Hunter
Linda Jeffers
Andrea Kelly*
Irene Kneece
Carolyn B. Lesslie
Anne Matthews*

Patricia G. Moody
Ann S. Moore
Charlotte Moore*
Wilson Sanders
Miriam C. Sprott
Sheila F. Werner

SOUTH DAKOTA
Daniel J. Hoff
Dean D. Mann
Lynette Molstad
Terri Tillma
Yvonne Weyrich

TENNESSEE
W. Clark Ford
Reba Y. Givens
Vicki Johnson
Charles E. Read
Bobbie Sorrells
Millie E. Washington

TEXAS
James C. Bennett
Shirley Chenault
Annice M. Elliott
Tom Loftin
Mary Joy Norton
June Nutt
Sharon Lund O'Neil
Gloria E. Padilla
William R. Pasewark
Gay Sweet-Harris*
Betty Walker
Mary Wilson

UTAH
Lois H. Anderson
Lloyd W. Bartholome
Marianne J. D'Onofrio
Elizabeth B. Gillard
Cheryl S. Hardy
Frances Larsen
Louise Lochhead
Carol A. Lundgren
Renee W. Pay
Jeanne Shell
Max L. Waters
Doris Williamson

VERMONT
Lydia M. Foisy
Richard Oates
Cathy L. Willis

VIRGIN ISLANDS
Ayano Baules

VIRGINIA
Robert A. Almond
Martha Brookshire Brown
Nancy Driscoll
Jean S. Gordon
J. Howard Jackson
Carl E. Jorgensen
Margaret S. Kirby
Elizabeth W. Payne
B. June Schmidt
Daniel L. Stabile
Sue W. Stanley
Lois E. Wells
Jane D. Williams

WASHINGTON
Fran Olson
Teddy Steenson

WEST VIRGINIA
Norma Crum
Gail Hall
Beryl D. Hart
Dwight D. Hutchinson
Mary Igo
Victoria T. Mullennex
Rebecca Riffe Schlenker
Emily Warden

WISCONSIN
Mavis J. Andler
F. William Beecher
Marianne Frye
Jack Hoggatt
Patricia Holy
Karen Knox
Charlotte Kraft
G. Renick
Robert Stieber
Rose Mary Wentling

WYOMING
Roberta Derr
Jo Ferguson
Karen S. McLean
Lisa Janine Neese
Ellie Noonan
Emma Jo Spiegelberg
Karen Trezona

SELECTED REFERENCES

Accrediting Commission of the Association of Independent Colleges and Schools, Accreditation Standards: Policies, Procedures, and Criteria, 1980.

Bangs, F. K. and Hillestad, M. C. "Curricular Implications of Automated Data Processing for Educational Institutions." Boulder: University of Colorado, 1968.

Bierly, F. L. "A Needs Assessment of Data Processing Employees and Employers Relating to an Adult Vocational Education Program in Information Processing," Doctoral Dissertation, Pennsylvania State University, 1979.

Borchen, S. D. and J. W. Joyner. Business Data Processing Occupational Performance Survey. Columbus: The Ohio State University, The Center for Vocational and Technical Education, 1973 (ERIC Document Reproduction Service No. ED 078 125).

Boyer, Ernest L. High School: A Report on Secondary Education in America. Carnegie Foundation for the Advancement of Teaching, New York: Harper and Row, 1983.

Business Education: Its Status, Its Potential, and Its Needs in the 1980's. Business and Office Education Division, American Vocational Association and National Business Education Association Joint Committee, 1980. Unpublished paper.

Calhoun, Calfrey C. Career Education in Business Education. Reston, VA: National Business Education Association, 1981. ERIC Document Reproduction Service No. ED 187 859.

Calhoun, Calfrey C. Today's Business Education. Curriculum Report, Volume 11, No. 3, National Association of Secondary School Principals, Washington, DC, 1982.

Carl D. Perkins Vocational Education Act. Public Law 98-524. October, 19, 1984.

Cannon, F. R., et al. A Study to Determine the Skills and Knowledges Required for Personnel in Business Data Processing Centers to Develop a Relevant Curriculum for Secondary Data Processing Programs and for Data Processing Programs in Teacher Education. Shippensburg, PA: Shippensburg State College.

Computer Literacy, National Business Education Association Task Force, National Business Education Association, Reston, VA, 1981.

Education For and About Business Education in America, National Advisory Council, Business and Office Education Division, American Vocational Association, Arlington, VA, 1980. Unpublished paper.

Feingold, S. Norman and N. R. Miller. Emerging Careers: New Occupations for the Year 2000 and Beyond. Garret Park Press, 1983.

Graves, Charlotte K. Concepts Needed by Managerial Personnel in Automated Offices as Perceived by Office Systems Consultants and Collegiate Business Faculty. Doctoral Dissertation, University of Tennessee, 1983.

Griffits, Horace. "Community College Business Programs." NABTE Review, 1975, pp. 16-19.

Guide for Implementation of Federal Information Processing Standards in the Acquisition and Design of Computer Products and Services. Federal Information Processing Standards Publication 80, U. S. Department of Commerce, National Bureau of Standards, U. S. Government Printing Office, Washington, DC, 1980.

Kolde, Rosemary. "The Role of Business Education at the Vocational-Technical School Level." NABTE Review, 1979, pp.9-11.

Lambrecht, J. J., M. D'Onofrio, L. E. Jones, and P. A. Merrier. Business and Office Education: Review and Synthesis of Research. Delta Pi Epsilon and The National Center for Research in Vocational Education, The Ohio State University, Columbus, 1981.

Little, Joyce. Recommendations and Guidelines for Vocational-Technical Career Programs for Computer Personnel in Operations. Committee on Curriculum for Community and Junior College Education, New York: Education Board of the Association for Computing Machinery, 1981.

Modlin, Gail G. "It's Our Turn." Business Education World, Fall, 1984.

Moon, Harry R. A Study of the Use of Office Technology and the Changing Role of the Management Support Staff in the Modern Office. MPC Educational Publisher, New York, 1983.

Naisbitt, John. Megatrends. Warner Books, Inc., New York, 1983.

National Association for Business Teacher Education. Standards for Business Teacher Education. National Business Education Association, 1982.

National Commission on Excellence in Education. A Nation at Risk: The Imperative for Educational Reform. Washington, DC, 1983.

The National Commission on Secondary Vocational Education. The Unfinished Agenda: The Role of Vocational Education in the High School. National Center for Research, Information Series No. 289.

National Council for Accreditation of Teacher Education. Standards for Accreditation of Teacher Education. Washington, DC. 1982.

Objectives and Requirements of the Federal Information Processing Standards Program. Federal Information Processing Standards Publication 23, U. S. Government Printing Office, Washington, DC, 1973.

Office of Personnel Management, Performance Appraisal System for OPM Employees in the Central Office, U. S. Office of Personnel Management, 1983.

Ruprecht, Mary M. and Kathleen P. Wagoner. Managing Office Automation, Somerset, NJ: John Wiley and Sons, Inc., 1983.

Scriven, J. D., J. L. Holley, K. P. Wagoner, and R. D. Brown. National Study of Word Processing Installations in Selected Business Organizations. A Report of the National Word Processing Research Study of Delta Pi Epsilon. St. Peter, MN: Delta Pi Epsilon, Inc., 1981. (ERIC Accession No. CE 028 787).

Singer, Norman N. Communication Technologies: Their Effect on Adult, Career, and Vocational Education. ERIC Clearinghouse on Adult, Career, and Vocational Education, The Ohio State University, Columbus, 1982.

Southern Association of Colleges and Schools, Commission on Occupational Education Institutions, The COEI Self-Study Manual, 1982.

Standards for Excellence in Trade and Industrial Education. Contract No. 300-83-0041. Vocational Industrial Clubs of America, Leesburg, VA, 1985.

Standards for Industrial Arts Education Programs. Contract No. 300-78-1565, Department of Industrial Arts Education, Virginia Polytechnic Institute and State University, Blacksburg, VA, 1981.

Standards for Quality Vocational Programs in Agricultural/Agribusiness Education. Agricultural Education Department, Iowa State University, Ames, IA, 1977.

Standards for Vocational Home Economics Education. Contract No. 300-79-0538, Department of Home Economics, University of Texas at Austin, Austin, TX, 1981.

"This We Believe About Business Data Processing in Business Education." Policies Commission for Business and Economic Education, National Business Education Association, Reston, VA, 1983.

"This We Believe About Computer Literacy." Policies Commission for Business and Economic Education, National Business Education Association, 1984.

"This We Believe About Information Processing in Business Education." Policies Commission for Business and Economic Education, National Business Education Association, Reston, VA, 1982.

"This We Believe About Word Processing in Business Education." Policies Commission for Business and Economic Education, National Business Education Association, 1983.

Wichowski, Chester P., et al. 1983 Word and Data Processing Curriculum Materials Review. New Jersey Vocational-Technical Curriculum Laboratory, Rutgers--The State University, New Brunswick, NJ, 1983.

The Work Revolution. Eighth Annual Report, National Commission for Employment Policy, Washington, DC, 1982.

*U.S. GOVERNMENT PRINTING OFFICE : 1985 O-479-569/32489